REMARKS

The Office Action of March 11, 2008 has been received and its contents carefully considered. The allowance of claims 1-3 has been noted with satisfaction. However, an RCE is being filed concurrently to permit further prosecution of the rejected claims.

The present Amendment revises claims 4, 5, 7, and 9. Claims 1 and 4 are the independent claims. Claims 1-18 are now pending in the application.

Claims 4 and 11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Zweig et al (US 7,154,854 B1) in view of Tanigichi et al (US 6,445,679 B1), hereafter referred to as "Zweig" and "Tanigichi," respectively. Independent claim 4 has been amended and it is respectfully submitted that it is patentable over the cited references for at least the following reasons.

Claim 4 now recites (with emphasis added):

> 4. (currently amended) A method for transmission rate adaptation used in a wireless network, a current transmission rate being selected from a set of predetermined transmission rates, each of the predetermined transmission rates, R, being associated with a PER (packet error rate) range, which includes a predetermined threshold pair of a high PER (packet error rate) threshold, denoted as $Q_H(R)$, and a low PER threshold, denoted as $Q_L(R)$, the method comprising:
>
> (1) transmitting a first plurality of packets, wherein **a first number N1 of the first plurality of packets is determined according to the $Q_H(r_n)$;**
>
> (2) calculating a first estimated PER, denoted as $P1(r_n)$, over the first plurality of transmitted packets, wherein r_n denotes the current transmission rate, and the subscript n denotes an adaptation iteration index ;
>
> (3) checking whether the $P1(r_n)$ is larger than the $Q_H(r_n)$, and if yes, processing step (4), else processing step (5);
>
> (4) reducing the transmission rate and ending the method;
>
> (5) transmitting a second plurality of packets, wherein **the number of the second plurality of packets is equal to a second number N2 minus the first number N1, and the second number N2 is determined according to the $Q_L(r_n)$;**
>
> (6) calculating a second estimated PER, denoted as $P2(r_n)$ over the second plurality of transmitted packets;

(7) checking whether the $P2(r_n)$ being smaller than the $Q_L(r_n)$, and if yes, processing step (8), else processing step (9);

(8) increasing the transmission rate and ending the method;

(9) checking whether the $P2(r_n)$ is larger than the $Q_H(r_n)$, and if yes, processing step (10), else ending the method; and

(10) reducing the transmission rate.

In contrast, Zweig discloses that an AP first transmits one or more data packets to one or more associated WU(s) and determines a factor indicative of the error(s) that occurred in the transmission of the one or more data packets to the WU(s) (see column 8, lines 24-29 and Figure 4). The fragmentation threshold is reduced if the (transmission error) factor is above the upper threshold and is increased if the factor is below the lower threshold (see column 8, lines 41-61 and Figure 4).

Zweig fails to disclose or suggest transmitting a second plurality of packets, wherein **the number of the second plurality of packets is equal to a second number N2 (determined according to the $Q_L(r_n)$) minus the first number N1 (determined according to the $Q_H(r_n)$)**, as recited in the amended claim 4.

Instead, the number of packets to be sent, based on the fragmentation threshold, can be determined by the upper threshold, regarded as the $Q_H(r_n)$ of claim 5 or the lower threshold, regarded as the $Q_L(r_n)$ of claim 7, rather than being determined to be **a second number determined according to the upper threshold *minus* a first number determined according to the lower threshold**.

Tanigichi discloses that a stream conversion section 23 compares a new transmission rate requested by a QoS setting message with a transmission rate set currently (step J1 in Figure 27). If the new transmission rate is smaller, the stream conversion section 23 **calculates the number of bytes as the upper bound limit for data which can be transmitted in one cycle** (one GOP cycle) (the number of transmission permissible bytes) **from a newly requested transmission rate** (step J8). When a new transmission rate is higher than a current transmission (step J1), the stream conversion section 23 not only

calculates the number of transmission permissible bytes from the new transmission rate but sets a fixed flag to the OFF state (see column 29, lines 63-65, column 30, lines 23-27 and 45-51).

Tanigichi fails to overcome the deficiency of Zweig as mentioned above, and thus the combination of the references Zweig and Tanigichi does not produce the invention defined by the amended claim 4. Therefore, it is respectfully submitted that the amended claim 4 is patentable over the cited references and the rejection of claim 4 should be withdrawn.

Claims 5-18 depend (directly or indirectly) from claim 4 and recite additional limitations to further define the invention. They are therefore automatically patentable along with claim 4 and need not be further discussed. Nevertheless, two of the references cited in the rejection of the dependent claims will now be briefly addressed.

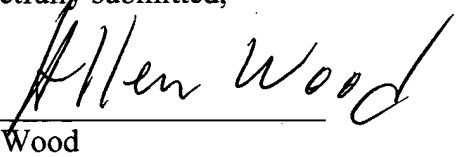
Cheng (US 6,745,352, cited in the rejection of claims 5, 7, and 9) discloses that a receiver iteratively processes each of a plurality of successive received symbol sequences to provide a respective plurality of data sequences (block 51), for each data sequence provided, a number of iterations performed to provide the data sequence is provided (block 53), and the number of iterations performed is used to estimate an error rate for received communications (block 55) (see column 5, lines 1-8 and Figure 5).

Varma et al (US 6,745,352, cited in the rejection of claims 6, 8, and 10) discloses determining a measure of errors by monitoring a number of no-acknowledgment (NACK) messages and a number of acknowledgment (ACK) messages that occur for a wireless communication link (column 6, lines 18-22 and Figure 5).

Cheng and Varma et al fail to overcome the deficiency of Zweig and Tanigichi as mentioned above, and would not produce the invention defined by the amended claim 4 even if they were combined with Zweig and Tanigichi. The same goes for the other references cited in the rejection of the dependent claims.

For the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,



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